

Environmental Management - Grand Junction Office



Ten-Year Site Plan
Fiscal Years 2008 – 2017

Moab UMTRA Project

May 2008



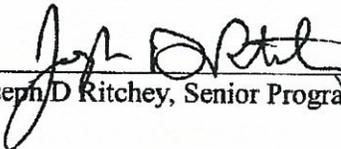
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Office of Environmental Management

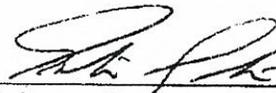
**Ten-Year Site Plan
Fiscal Years 2008 – 2017
Moab UMTRA Project
May 2008**

Revision No.	Date	Reason/Basis for Revision
0	May 2008	Initial issue of Ten-Year Site Plan Moab UMTRA Project (DOE-EM/GJ1541) under Contract DE-AC30-07CC60012.

Review and Approval



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1.0 INTRODUCTION

1.1 Purpose

The Ten-Year Site Plan (TYSP) is the foundation of the strategic planning for the facility and infrastructure program at sites, facilities, and office areas managed by the contractors to the U.S. Department of Energy (DOE) Office Moab Uranium Mill Tailings Remedial Action (UMTRA) Project. The TYSP integrates program technical requirements, performance measures, budget, and cost projections within a 10-year window of the Office of Environmental Management (EM) program in compliance with DOE Order 430.1B Real Property Asset Management.

1.2 Site Description

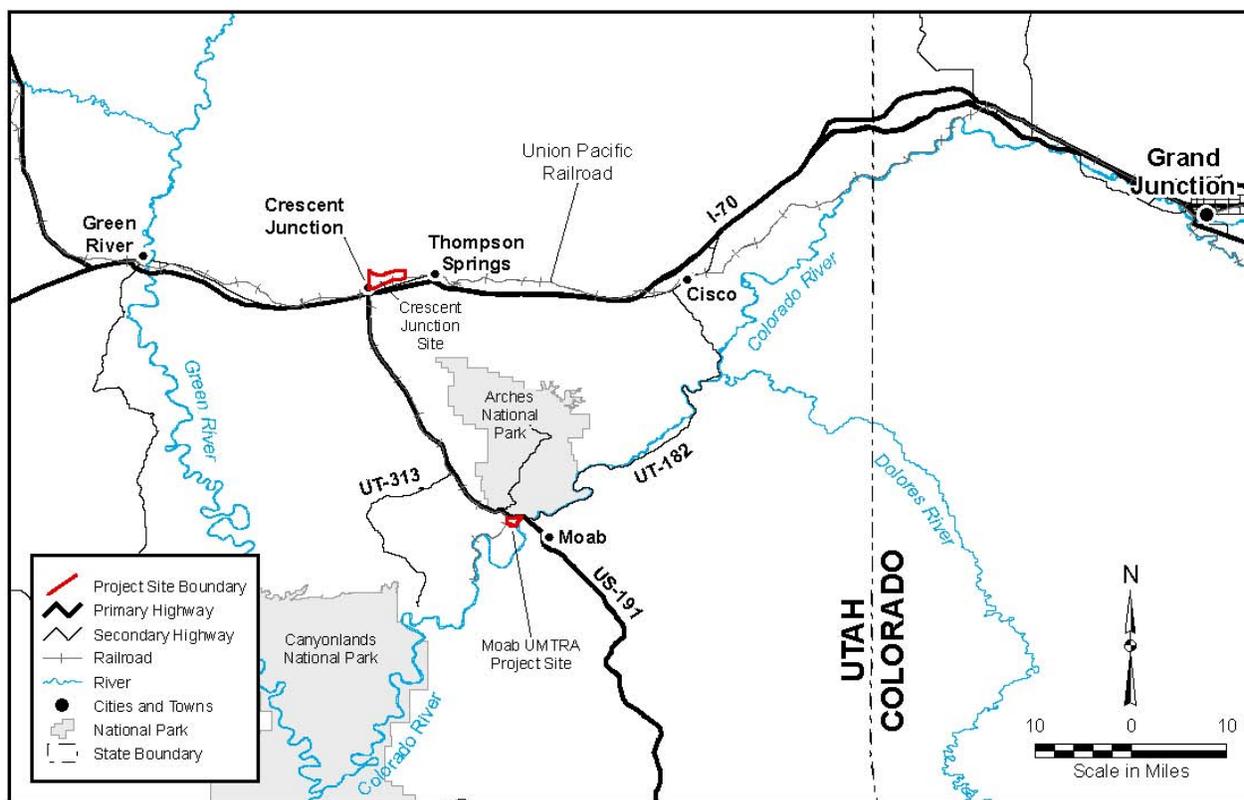
The Moab site (formerly known as the Atlas mill site) is a former uranium-ore processing facility located about three miles northwest of the city of Moab in Grand County, Utah (Figures 1 and 2) and lies on the west bank of the Colorado River at the confluence with the Moab Wash. Figure 1 shows the general location of the Moab site and Crescent Junction, Utah, disposal site relative to Moab and other geographical locations. Figure 2 provides an aerial view of the Moab site.

The site is irregularly shaped and encompasses approximately 400 acres; a 130-acre uranium mill-tailings pile occupies much of the western portion. Steep sandstone cliffs border the site on the north and southwest. The Colorado River forms the southeastern boundary of the site. U.S. Highway 191 parallels the northern site boundary, and State Highway 279 crosses the western portion of the site. The entrance to Arches National Park is located less than one mile northwest of the site across U.S. Highway 191, and Canyonlands National Park is about 12 miles to the southwest. The site lies within the Colorado River 100-year floodplain.

The Union Pacific Railroad traverses a small section of the site just west of State Highway 279, then enters a tunnel and emerges several miles to the southwest. The Moab Wash runs northwest to southeast through the center of the site and joins with the Colorado River. The wash is an intermittent stream that flows only after significant precipitation or snowmelt. The Moab site lies directly across the Colorado River from the Scott M. Matheson Wetlands Preserve. This area consists of marsh and riparian habitat, including dense growth of tamarisk.

1.3 Background

The Moab site was a Uranium Mill Tailings Radiation Control Act (UMTRCA) Title II site licensed by the U.S. Nuclear Regulatory Commission (NRC). With the enactment of the Floyd D. Spence National Defense Authorization Act for Fiscal Year (FY) 2001, Congress designated the site as an UMTRCA Title I site. On October 25, 2001, DOE assumed ownership of the Moab site. The DOE EM Office of Grand Junction, Colorado, is responsible for reclamation and stewardship of the site.



N:\Moab\999\0005\06\002\X01874\X0187400.mxd coatesc 8/10/2006 7:27:56 AM

Figure 1. Location of Moab Site and Crescent Junction Disposal Site

Ground water in the shallow alluvium at the site was also contaminated by milling operations. In 2003, DOE implemented the first phase of a ground water interim-action system at the site to address concerns regarding elevated ammonia concentrations in ground water discharging to the Colorado River. The extraction system, which currently consists of 40 wells, was designed to extract ground water and prevent the contaminants from directly discharging to the river, thus reducing negative impacts on endangered fish species and critical habitat. Water from the wells is pumped to a lined evaporation pond installed on top of the tailings pile. A sprinkler system was installed and has been expanded twice to enhance evaporation of water pumped to the evaporation pond.

DOE developed an Environmental Impact Statement (EIS) to fulfill the National Environmental Policy Act requirement of considering the full range of reasonable alternatives and associated environmental effects of significant federal actions. In compliance with requirements, DOE actively solicited public participation in its decisions that could affect the quality of human health and the environment. Twelve federal, state, local, and tribal agencies assisted DOE as cooperating agencies in the EIS process of identifying all reasonable alternatives and significant environmental, social, and economic impacts associated with the proposed actions.

In July 2005, DOE published the final EIS that presented the preferred alternatives of active ground-water remediation and off-site disposal of the tailings pile and other residual radioactive material (RRM) at the proposed Crescent Junction, Utah, disposal site using predominantly rail transportation. The preferred alternatives included cleanup and reclamation of the mill-site property and certain off-site properties known as vicinity properties. DOE issued the Record of Decision (ROD) in September 2005, which detailed the selection of the preferred alternatives and the basis for that decision. In February 2008, the ROD was amended to allow DOE to relocate all the Moab uranium-mill tailings and other contaminated materials by either rail or truck.

The tailings pile is located in an unlined impoundment pile that averages 94 feet at its highest point above surrounding ground (elevation 4,076 feet) and is about 750 feet west of the Colorado River. The pile was constructed with five terraces and consists of an outer compact embankment of coarse tailings, an inner impoundment of both coarse and fine tailings, and an interim cover of soils taken from the site outside the pile area. Debris from dismantling the mill buildings and associated structures was placed in an area at the south end of the pile and covered with contaminated soils and fill. Evidence indicates that historical building materials may contain asbestos. Radiation surveys indicated that some soils outside the pile also contained radioactive contaminants at concentrations above the Environmental Protection Agency (EPA) standards in Title 40 U.S. Code of Federal Regulations (CFR) Part 192. In 2003, DOE began cleaning up radiologically contaminated soil in non-pile areas of the project site and hauling it to the top of the tailings pile. This interim soils remediation has resulted in a reduction of the contaminated footprint by 73 acres.

In addition to tailings and contaminated soils, other contaminated materials requiring cleanup include ponds used during ore-processing activities, disposal trenches, locations used for waste management during mill operations, and vicinity properties in Moab.

DOE estimates the contaminated material at the Moab site and vicinity properties has a total volume of approximately 16 million tons (12 million cubic yards).

1.4 Current Use

DOE has begun taking steps toward relocation and permanent disposal of the RRM. Some of these steps include characterizing the Moab and Crescent Junction sites, developing the Remedial Action Plan and other supporting documents, building necessary infrastructure, coordinating transportation logistics, hiring appropriate personnel, and awarding contracts to perform the work. The DOE is also conducting ongoing site operations and maintenance activities, consisting of maintaining site-access controls, conducting radiological assessments and environmental monitoring, dewatering and stabilizing the uranium mill tailings pile, and implementing an interim action to clean up the ground water to address elevated concentrations of ammonia and other contaminants.

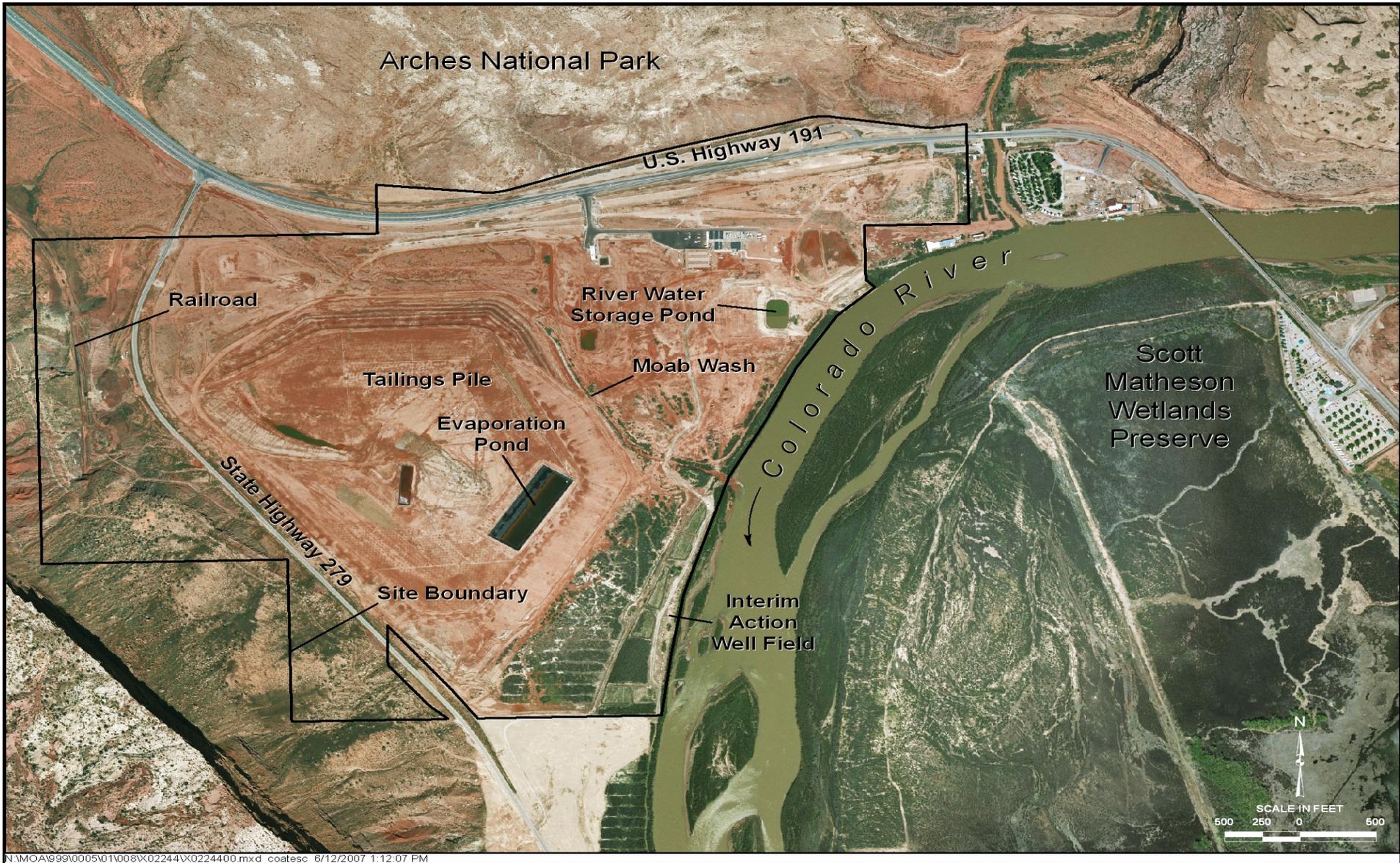


Figure 2. February 2005 Aerial View of the Moab Site

2.0 CURRENT LAND USE

The Moab site is currently designated as a Specially Planned Area in accordance with Grand County Ordinance 346 of the Grand County North Gateway Plan. This designation is valid while reclamation is in effect.

DOE requested a five-year temporary withdrawal of approximately 2,300 acres of public-domain lands near Crescent Junction for construction of the disposal cell, a buffer zone surrounding the disposal cell, and areas needed for construction support purposes. DOE requested temporary withdrawal of the entire area with the intent of incrementally relinquishing areas back to public domain as they are no longer required for construction support purposes. DOE prepared an application to permanently transfer 500 of the 2,300 acres needed for the final disposal-cell footprint and buffer zone and the permanent land transfer was published in the Federal Register on March 31, 2008.

DOE anticipates that at the completion of surface remediation, the contaminant concentrations in the ground water discharging to the Colorado River will be below the limits as specified in the Biological Opinion to the Environmental Impact Statement. After completion of surface remediation, DOE plans to leave the entire site in a park-like setting; however, the future use of the site will be based in part on institutional controls yet to be established for the site.

3.0 MISSION AND PROGRAMS

3.1 Mission and Programs

The current project mission is to relocate approximately 12 million cubic yards (16 million tons) of uranium-mill tailings and other contaminated materials to the Crescent Junction site for permanent disposal, actively remediate ground water at the Moab site, and assess vicinity properties in Moab and remediate those with contamination that exceeds established criteria.

DOE awarded two new contracts for the Moab Project in June 2007: a Remedial Action Contractor (RAC) contract was awarded to EnergySolutions Federal Services, Inc., and a Technical Assistance Contract (TAC) contract was awarded to S&K Aerospace, Inc. The RAC is responsible for finalizing the design of how to move the tailings to the Crescent Junction site, developing that tailings-removal system, building the disposal cell, beginning transport of the tailings, and handling day-to-day maintenance and operations at the Moab and Crescent Junction sites. The TAC provides technical and administrative support services to DOE and will continue the ground water interim-action efforts and conduct radiological surveys of vicinity properties in the Moab area.

By March 2009, several significant site improvements are planned for the project, such as installation of the non-potable waterline and pumping and booster stations for the Crescent Junction site, a storage pond at the Crescent Junction site, a lidding/de-lidding facility at the Moab site, and rail spur construction and upgrades at both sites. Other planned work scope is shown in Attachment A.

3.2 Mission-Critical Facilities and Infrastructure and Correlating Mission Needs

Based on the EM definition of critical facilities and the Moab UMTRA Project mission, the mission-critical facilities have been identified and are detailed in Attachment F. No current mission-critical infrastructure is planned to be phased out until FY 2028. The list of mission-critical facilities is consistent with the EM definition. A summary of these facilities follows.

- The Moab site construction water-supply system currently consists of river pumps, wells, pond, and sprinklers on the tailings pile. The Crescent Junction site construction water system will draw water from the Green River, transport it to the site, and is currently being installed.
- Potable water at the Moab site is trucked in and stored in plastic water tanks and distributed via a booster pump in waterlines to the trailers. The system was not sized to provide fire protection. Potable water at the Crescent Junction site is piped from Thompson Springs through more than 33,000 feet of polyvinyl chloride (PVC) pipe.
- The electrical-distribution systems that supply power to both the Moab and Crescent Junction sites include poles, lights, conduit, lines, and junction boxes. (These systems were installed in 2006, and no significant issues are foreseen in the near future unless work scope changes dramatically. Minor upgrades will be performed on an as-needed basis as part of the daily site operations.)

- Access roads for both locations must be maintained in good repair as they provide the only approved, local-access routes to the sites.
- The decontamination pad is required for all loaded contaminated material exiting the Moab site.

Performing a vital role in the facility operation are non-mission critical, mission-dependent facilities such as the office trailers, trailer staging areas, and warehouse.

4.0 THE TEN-YEAR SITE PLAN

4.1 Assumptions

- Site infrastructure construction at Moab and Crescent Junction is completed in FY08/ FY09.
- Site operations both at Moab and Crescent Junction will continue in a steady state for the remainder of the period FY08 through FY17.
- RRM shipping operations are on a five-days a week, 10-hour a day schedule, operating from one excavation face on the Moab tailings pile.
- An average of 17 filled RRM containers will be shipped from Moab to Crescent Junction each working day. This same amount of empty containers is shipped from Crescent Junction to Moab each working day.
- Site shipping operations from FY13 through FY17 are on a four-days a week, 10-hours a day schedule, operating from two excavation faces on the Moab tailings pile.
- Shipping from FY13 through FY17 is an average of 30 filled RRM containers shipped from Moab to Crescent Junction each working day. This same amount of empty containers is shipped from Crescent Junction to Moab each working day.
- Site infrastructure components do not require replacement or modernization during FY08 through FY17.

4.2 Planning Process

The project baseline defines the near-term cost and schedule for FY08 - FY12. Design activities will be completed in FY08 with construction in FY08 and FY09. Site construction includes a water line from the Green River to the Crescent Junction disposal-cell location, rail upgrades, RRM handling and transfer infrastructure, and site infrastructure.

The project uses an Integrated Work Plan system to ensure the designs are properly implemented, regulatory requirements are met, necessary resources are available, and safety is incorporated into all work aspects. This process utilizes subject matter experts and work-team reviews to validate that work plans are in compliance with the project's overall plan. This integration includes the RAC, TAC, and DOE as appropriate for each component.

The project developed a near-term Risk Management Plan to identify and quantify contractor risks through FY12. DOE completed a Risk Management Plan to identify and quantify DOE risks through the project life-cycle.

4.3 Facilities and Infrastructure Overview

Facilities infrastructure at Moab is comprised of the following:

- Modular buildings that provide office space, restrooms, showers, break rooms, radiological-access control, conference area, and a constructed warehouse.
- Four clusters of 10 wells each, referred to as Configurations 1, 2, 3, and 4, either for extracting contaminated ground water or injecting fresh water (diverted river water) in addition to various monitoring wells.
- An evaporation pond located on top of the tailings pile. A sprinkler system operates in conjunction with the evaporation pond by spraying water from the pond onto the tailings pile.
- The river water-storage pond and four associated wet wells.
- A decontamination pad to scan trucks for contamination before they leave the site.
- Roads and rail load out.
- The uranium-mill tailings and other contaminated materials.

The Crescent Junction site includes the following:

- Modular buildings that provide office space, restrooms, break rooms, and a conference area.
- Roads and rail load out.
- Storm water retention pond.

4.4 Real Property Asset Management

To comply with DOE Order 430.1B Real Property Asset Management, all real property assets must be reported in the Facilities Information Management System (FIMS). Annual validations of building and trailer data are performed to ensure that data being reported in the FIMS is accurate and complete. Starting in 2009 Other Structures and Facilities (OSF) data will be included in these validations.

Condition

The majority of the Moab and Crescent Junction site property is less than two years old with a FIMS condition of “excellent.” The project is also constructing additional facilities to support operations, and these new facilities are anticipated to begin with this same rating.

During FY08 through FY17, the majority of site infrastructure includes temporary facilities such as trailers or prefabricated, relocatable buildings and their supporting utilities. The utilities supporting these facilities include heating, ventilating, and air-conditioning (HVAC) systems, water; and electricity. The project conducts maintenance on all facilities to ensure they remain in excellent condition and provide a safe work environment. Site workers and safety personnel conduct facility walk downs to verify this status and deficiencies are corrected.

The RAC identified facility managers for these facilities. The facility managers (Operations Manager in Moab, Construction Manager in Crescent Junction) verify that the maintenance in their areas is current, track expenditures against this maintenance, and keep a record of repairs.

Utilization

The Moab and Crescent Junction facilities are used to support the EM mission. The site-wide Asset Utilization Index (AUI) on operational buildings and trailers owned by DOE is 85 percent, meeting Federal Real Property Council (FRPC) and Office of Engineering and Construction Management (OECM) guidelines detailed in Attachment B. Facilities are or will be used as office space, access control into the contamination area, maintenance facilities, storage, and meeting/break-area space. Existing facilities were placed in accordance with the project's requirements to locate the facilities based on worker and project access.

Facilities and facility space can only be relocated or used for a different purpose when approved by the appropriate facility manager. Facility-support expenses are listed against a site's operations and maintenance budget, so costs are captured for each site.

Existing Site Facilities

At the Moab site, there is one permanent building and nine trailers in operation, totaling 34,049 square feet. At the Crescent Junction site, there are two trailers in operation, totaling 2,160 square feet. Additionally, there is leased office space in Grand Junction, Colorado, totaling 8,387 square feet, detailed in Attachment E.

Other facilities at the Moab and Crescent Junction sites include fences, electrical systems, water-supply systems, trailer-staging areas, roads, paved areas, pumps, ponds, a decontamination pad, and a well system.

Excess Facilities Elimination/Disposition and New Construction

There are no facilities currently identified for disposition as excess, as shown in Attachment C.

New construction, indicated in Attachment D, begins in FY08 to implement the approved design. Construction at the Moab site includes the haul road to the rail load out, lidding/de-lidding facility, rail spur, and gantry crane. Construction at the Crescent Junction site includes the non-potable water line, haul road, maintenance facility, and rail spur. Infrastructure construction completes in FY09 in preparation for the first RRM shipments, and disposal-cell excavation begins for the first two sections in Crescent Junction.

Land-Use Planning

DOE anticipates that at the completion of surface remediation, the contaminant concentrations in the ground water discharging to the Colorado River will be below the limits as specified in the Biological Opinion to the Environmental Impact Statement. After completion of surface remediation, DOE plans to leave the entire site in a park-like setting; however, the future use of the site will be based in part on institutional controls yet to be established for the site. A conceptual view of the post-remediation site is shown in Figure 3.

Land-use planning is consistent with and incorporates requirements from BLM, the National Park Service, the U.S. Army Corps of Engineers, EPA, the NRC, the state of Utah, and Grand County, Utah.

During the active institutional-controls period, DOE will implement monitoring suitable for assessing disposal-cell performance. Planned activities also include minimizing features that would attract future development of the site, warning of potential hazards through signage, controlling site access, performing site maintenance, addressing current standards, and preventing development.

Any future land sale at the Moab site following remediation by DOE will be held in accordance with requirements under the Floyd D. Spence National Defense Authorization Act for FY 2001.

Based on EM requirements and the Moab Project mission (Section 3.1), facilities and infrastructure projects anticipated by the RAC that support ongoing and planned waste management, environmental remediation, long-term stewardship (LTS), real property assets/facilities, and associated funding sources are identified in Attachment A.

4.5 Site Footprint Management

No changes other than those listed above are identified that will reduce or increase the site's footprint anytime during the period covered in this TYSP. A future TYSP or Closure Plan will address identified footprint reductions at that time.

Future Space Needs

Based on the current project mission and schedule, it is anticipated that additional trailers for offices and restrooms at the Moab and Crescent Junction sites may be purchased in the future.

Leased Space

No current need for additional leased space has been identified for the remainder of the project.

4.6 Deferred Maintenance Reduction

The current state of the facility and infrastructure is generally rated as excellent using the FIMS criteria. Much of the infrastructure, such as the office trailers, power distribution systems, fencing, and water supply were constructed in 2006, and, as a result, there is no deferred maintenance.



Figure 3. Artist's Rendition of Moab Site After Surface Remediation (circa 2028)

The operations and maintenance budget includes a maintenance program. This program includes assessments of each facility and identification of general maintenance and repair requirements. As a result of 2006 infrastructure construction, deferred-maintenance requirements are not anticipated.

4.7 Maintenance

The project maintenance goal is to maintain DOE assets in a safe and reliable condition to keep them operable for the life of the project. This goal will be achieved by conducting activities in a manner that ensures the preservation, availability, and reliability of the facilities.

Preventive maintenance is anticipated as sufficient to sustain the facilities in good working order. Regularly scheduled maintenance and anticipated major repairs or replacement of components will occur periodically over the expected service life of the facilities to sustain them. Insufficient levels of maintenance and repair can result in a reduction in service life.

The maintenance program budgets and tracks support and repairs. General site costs (e.g., electricity) are tracked by ratio for each facility on the site. Specific costs (e.g., repair to an HVAC system) are tracked against the facility where the cost was incurred.

4.8 Utilities

Utilities are defined as: The private or public service facilities such as gas, electricity, telephone, water, and sewer that are provided as part of the development of the land. Listed below is an overview of the utilities at the Moab UMTRA Project sites.

- The Moab site construction water-supply system currently consists of river pumps, wells, pond, and sprinklers on the tailings pile. The Crescent Junction site construction water system will draw water from the Green River, transport it to the site, and will be constructed in FY08.
- Potable water for the Moab site is trucked in and stored in plastic water tanks and distributed via a booster pump in water lines to the trailers. The system was not sized to provide fire protection. Potable water for the Crescent Junction site is piped in from Thompson Springs in more than 33,000 feet of PVC pipe.
- The electrical distribution systems at the Moab and Crescent Junction sites include poles, lights, conduit, lines, and junction boxes. These systems were installed in 2006, and no significant issues are foreseen in the near future unless work scope changes dramatically. Minor upgrades will be performed on an as-needed basis as part of the daily site operations.
- A septic tank, leach field, and collection piping to trailers were installed at both the Moab and Crescent Junction sites. These systems were installed in 2006, and no significant issues are foreseen in the near future unless work scope changes dramatically. Minor upgrades will be performed on an as-needed basis as part of the daily site operations.
- There are no natural-gas utilities.
- There are no central-steam systems.

4.9 Energy Management

The project's new facilities are installed with energy efficiency in the design and in compliance with DOE Order 430.2B, Departmental Energy and Utilities Management and to comply with the DOE Secretary's new energy initiatives for real property. In a memorandum dated August 21, 2007, the DOE Secretary indicated that DOE would exceed the goals established in Executive Order 13423, "Strengthening Federal Environmental, Energy, and Transportation Management (72 FR 3919; January 24, 2007) by applying Leadership in Energy and Environmental Design criteria established by the United States Green Buildings Council. Progress in meeting the requirements will be tracked within the FIMS.

Lighting

New lighting was placed throughout the sites, including in trailers, relocatable buildings, and outside lighting. Energy-efficient lighting is installed.

Energy Source

The Moab and Crescent Junction sites receive power from overhead lines through the Rocky Mountain Power distribution system.

Energy Savings Initiatives

Support Facilities. The project is utilizing relocatable buildings for the lidding/de-lidding facility and maintenance facilities. These facilities do not require the extensive HVAC system in the originally designed buildings. The Grand Junction office build-out included provisions supporting environmentally preferable product purchasing. In addition, the project participates in the Blue Sky program by buying wind power for the Moab site.

Crescent Junction Waterline. Design efficiency reduced the number of required pump stations from nine to five. This efficiency directly resulted in reducing the required power necessary to pump water from the Green River to the Crescent Junction site.

4.10 Security

Security interests at all Moab UMTRA project sites and facilities are similar; therefore, they have common minimum-security standards as determined by the U.S. General Services Administration (GSA). As the sites and facilities have different conditions; however, the specific applicability and method of implementation of these security measures will vary. For each site and facility in the Moab UMTRA Project being managed by the RAC and TAC, an evaluation is performed and documented to determine the security interests to be protected and the applicable security standards that are required to be implemented to meet the minimum-security requirements per DOE Order 470.4, Safeguards and Security Program.

In general, most identified security interests are protected by meeting the requirements of the GSA minimum-security standards for federal facilities in addition to implementing and enforcing an appropriate level of site and facility-access control.

An ongoing effort assesses the adequacy of how the security systems meet continuously changing security conditions. Because of the dynamic nature of security, required modifications are expected in the upcoming years.

5.0 FACILITIES AND INFRASTRUCTURE PROJECTS/ACTIVITIES AND COST PROFILE

5.1 Overview of Site Project Prioritization and Cost Profile

The site prioritization process takes into account:

- Health and safety concerns.
- Regulatory requirements.
- Operational requirements.

Based on these requirements, the project's cost profile was submitted as part of the project baseline.

5.2 Significant Project Deletions and Additions

This is the initial TYSP for the Moab UMTRA Project and, as such, there are no deletions or additions from prior plans.

5.3 Facilities and Infrastructure Cost Projection Spreadsheets

See the Cost Projection Spreadsheets included as Attachment A.

ATTACHMENT A

FACILITIES AND INFRASTRUCTURE COST PROJECTION SPREADSHEET

The spreadsheet in the attachment provides a list of the Moab UMTRA Project's projected facilities and infrastructure projects/activities and burdened costs for FY08 through FY17.

The project's plan for facility and infrastructure activities ties to the priorities established in the project's life-cycle baseline. Activities are prioritized to provide the most beneficial infrastructure revitalization opportunities consistent with EM mission requirements.

FACILITIES AND INFRASTRUCTURE COST PROJECTION SPREADSHEET –OPERATING FUNDED PROJECTS

E Facilities and Infrastructure Cost Projection Spreadsheet Operating Funded Projects																		
Priority (1)	Project Name (2)	RAC Project Number (3)	Mission Dependency (4)	Deferred Maintenance Reduction (5)	GSF Added or Eliminated (6)	Funding Type (7)	Total (8)	Prior Years Funding (9)	FY08 (11)	FY09 (12)	FY10 (13)	FY11 (14)	FY12 (15)	FY13 (16)	FY14 (17)	FY15 (18)	FY16 (19)	FY17 (20)
1	Replace shop doors	ES0335P		0	0	OPC	18	0	18	0	0	0	0	0	0	0	0	0
2	Winterize potable water tanks	ES0335T		0	0	OPC	6	0	6	0	0	0	0	0	0	0	0	0
3	Construct lidding/de-lidding facility	ES0425B		0	0	OPC	884	0	300	584	0	0	0	0	0	0	0	0
4	Install Moab road and paving	ES0425C		0	0	OPC	793	0	520	273	0	0	0	0	0	0	0	0
5	Install Moab roads and pads	ES0425C		0	0	OPC	482	0	482	0	0	0	0	0	0	0	0	0
6	Install Crescent Junction maintenance facility	ES0427A		0	0	OPC	387	0	104	283	0	0	0	0	0	0	0	0
Total Operations Funded Projects							2570	0	1430	1140	0	0	0	0	0	0	0	0

Note: Dollar amounts are in thousands.
 OPC=Other Project Cost

ATTACHMENT B

**SITE'S ASSET UTILIZATION INDEX
FIMS 093 REPORT**

Program Office: EM	Site: Moab	Site-Wide AUI: 85%*			
Measures	AUI	FRPC Guidelines	OECM Guidelines	Operating Gross Sq Feet**	No. of Operating Bldgs**
Warehouse	85%	50 – 85%	89%	22,497	1
Moab Site Totals				22,497	1
EM Program Totals				22,497	1

* Site-wide AUI includes all DOE-owned building assets.

** These numbers do not reflect the total gross square footage. They represent operating permanent buildings only.

ATTACHMENT E

FY08 LEASED SPACE PROFILE

#	FIMS # (1)	Property name (2)	Program (3)	Mission Dependency (4)	# Occupants (5)	Gross Square Feet (6)	Rental Rate per Rentable Square Feet (7)	Annual Cost (8)	Lease Type (9)	Lease Term – years (10)	Exp. Month/Year (11)	Renewal Options (12)
1	GRJ01-B	Grand Junction, CO, Office Space	EM	MD	27	7,552	19.17	\$144,998.40	Full	5	08/2012	N

ATTACHMENT F

FACILITIES INFORMATION MANAGEMENT SYSTEM – OSF MISSION DEPENDENCY REPORT FIMS 094

Program Office:	EM							
Site:	Moab and Crescent Junction							
Property ID	Property Name	Mission Dependency	OSF RPV	Deferred Maintenance	Summary Condition*	MD Pgm Ofc	Gross Sq Ft	Util %
CRJ01-ES	Crescent Junction, UT, Electrical System	Mission Critical	300,516	00	N/A			100%
CRJ01-RD	Crescent Junction, UT, Access Road	Mission Critical	801,646	00	N/A			100%
CRJ01-W	Crescent Junction, UT, Potable Water Line	Mission Critical	636,210	00	N/A			100%
MOA01-DP	Moab, UT, Decontamination Pad	Mission Critical	223,528	00	N/A			100%
MOA01-ES	Moab, UT, Electrical System	Mission Critical	1,081,690	00	N/A			100%
MOA01-EWF	Moab, UT, Extraction Well Field System	Mission Critical	2,465,710	00	N/A			100%
MOA01-PS	Moab, UT, River Inlet Pump System	Mission Critical	622,803	00	N/A			100%
MOA01-RD	Moab, UT, Access Road	Mission Critical	666,815	00	N/A			100%
MOA01-WS	Moab, UT, Construction Water System	Mission Critical	82,797	00	N/A			100%
MISSION CRITICAL TOTALS			6,881,716					
MOAB AND CRESCENT JUNCTION SITE TOTALS			6,881,716					
EM PROGRAM OSF TOTALS			6,881,716					

*Summary condition applies to buildings only.

APPENDIX 1

ACRONYMS AND ABBREVIATIONS

ACI	Asset Condition Index
AMP	Asset Management Plan
AUI	Asset Utilization Index
BLM	U.S. Bureau of Land Management
CFR	U.S. Code of Federal Regulations
D&D	Decontamination and Decommissioning
DOE	U.S. Department of Energy
EIS	Environmental Impact Statement
EM	Office of Environmental Management
EMCBC	Office of Environmental Management Consolidated Business Center
EPA	U.S. Environmental Protection Agency
FCI	Facility Condition Index
FIMS	Facility Information Management Systems
FRPC	Federal Real Property Council
FY	Fiscal Year
GSA	U.S. General Services Administration
GSF	Gross Square Feet
HVAC	Heating, Ventilation, and Air Conditioning
LTS	Long-term Stewardship
NEPA	National Environmental Policy Act
NRC	U.S. Nuclear Regulatory Commission
OECM	Office of Engineering and Construction Management
OMB	Office of Management and Budget
OPC	Other Project Cost
OSF	Other Structure and Facility
PE&D	Project Engineering and Design Fund
PP&E	Property, Plant, and Equipment
RAC	Remedial Action Contractor or Contract
ROD	Record of Decision
RPV	Replacement Plant Value
RRM	Residual Radioactive Material
TAC	Technical Assistance Contractor or Contract
TPC	Total Project Cost
TYSP	Ten-Year Site Plan
UMTRA	Uranium Mill Tailings Remedial Action
UMTRCA	Uranium Mill Tailings Radiation Control Act of 1978
USC	United States Code

APPENDIX 2

GLOSSARY OF TERMS

Active Facilities: Facilities with a FIMS status of Operating, Operational Standby, or Operating Pending Deactivation and Decontamination (facility required for current and ongoing mission needs).

Alterations: Adjustments to interior arrangements or other physical characteristics of an existing facility so that it may be more effectively adapted to or used for its designated purpose. Alterations do not result in betterment to a facility (DOE Order 430.1B, *Real Property Asset Management*).

Annual Utilization Surveys: Annual utilization surveys are directed by Federal Property Management Regulations § 101-47.802 to determine how well the real-property assets are being put to use. The survey content must address the standard specified in Federal Property Management Regulations § 101-47.801, Standards (DOE O 430.1B, *Real Property Asset Management*).

Asset Condition Index (ACI): ACI is the DOE's corporate measure of the condition of its facility assets. The ACI reflects the outcomes of real-property maintenance and recapitalization policy, planning, and resource decisions. The index is one (1) minus the facility condition index (FCI). The FCI is the ratio of Deferred Maintenance to Replacement Plant Value. The FCI is derived from data in FIMS (DOE Order 430.1B, *Real Property Asset Management*).

$$ACI = 1 - FCI$$

Ratings are assigned to ACI range measures. The goal is for the ACI to approach one (1). The ACI increases and approaches one (1) as the condition of facilities improves at a site. ACI ranges and ratings are as follows:

<u>ACI Range</u>	<u>ACI Rating</u>
1.00 > 0.98	Excellent
0.98 > 0.95	Good
0.95 > 0.90	Adequate
0.90 > 0.75	Fair
0.75 >	Poor

Asset Management Plan: Is the Federal Real Property Council (FRPC) requirement that each Executive Agency will draft an Asset Management Plan (AMP) that addresses, at a minimum, the FRPC Guiding Principles and the AMP required components. AMPs are subject to Office of Management and Budget (OMB) review and approval.

Asset Utilization Index (AUI): Consistent with Federal Real Property Reporting requirements, Utilization will be captured as a percent utilization on a scale of zero to 100 percent for each FIMS record. The rate of utilization for five key facility types is summarized in the table below:

Rate	Categories and Percent Utilization				
	1. Offices	2. Warehouses	3. Hospitals	4. Laboratories	5. Housing
<i>Over-Utilized</i>	>95%	>85%	>95%	>85%	N/A
<i>Utilized</i>	75-95%	50-85%	70-95%	60-85%	85-100%
<i>Under-Utilized</i>	<75%	10-50%	25-70%	30-60%	<85%
<i>Not Utilized</i>	N/A	<10%	<25%	<30%	N/A

Utilization for each category is measured as follows:

1. Offices – ratio of occupancy to current design capacity.
2. Warehouses – ratio of gross square feet occupied to current design capacity.
3. Hospitals – ratio of occupancy to current design capacity.
4. Laboratories – ratio of active units to current design capacity.
5. Housing – housing will be measured as a percent of individual units that are occupied.

Standard FIMS Report #093 Reports the Asset Utilization Index and outlines both FRPC Guidelines and OECM Guidelines.

Authorization Basis: Safety documentation supporting the decision to allow a process or facility to operate. Included are corporate operational and environmental requirements as found in regulations and specific permits and, for specific activities, work packages or job safety analysis [per DOE G 450.4-1B, *Integrated Safety Management System Guide*, dated 3-1-01 (reference 1,)] (DOE O 430.1B, *Real Property Asset Management*).

Betterments: Capitalized improvements to facilities that result in better quality work, increased capacity, and/or extended useful life as required to accommodate regulatory and other changes to requirements. Determining when and to what extent expenditure should be treated, as betterment requires judgment. The proper basis for determining whether betterment is effected is when the effect of the replacement is related to each unit when a minor item is replaced in each of a number of similar units, rather than to the cumulative costs. Listed below are the various terms that are commonly used to describe various categories of betterments.

- Construction is the erection, installation, or assembly of a new plant facility; the addition, expansion, improvement, or replacement of an existing facility; or the relocation of a facility. Construction includes equipment installed in and made part of the facility and related site preparation; excavation, filling and landscaping, or other land improvements; and design of the facility. Examples of improvements to an existing facility include the following types of work.
 - Replacing standard walls with fireproof walls.
 - Installing a fire sprinkler system in a space that was previously not protected with a sprinkler system.

- Replacing utility system components with a significantly larger capacity components (e.g., replacing a 200-ton chiller with a 300-ton chiller) and converting the functional purpose of a room (e.g., converting an office into a computer room).
- Conversion is a major structural revision of a facility that changes the functional purpose for which the facility was originally designed or used.
- Major Renovation and Replacement is a complete reconstruction of a facility that has deteriorated or has been damaged beyond the point where its individual parts can be economically repaired. If the item replaced is a retirement unit, its original costs (including installation cost) are removed from the plant and capital equipment accounts, and the cost of the newly installed item (including installation cost) is added to the plant and capital equipment accounts (DOE Order 430.1B, *Real Property Asset Management*).

Building: A building is a roofed permanent structure suitable for housing people, materials, or equipment. Criteria for distinguishing between a building and a shed should be developed by the site and be consistent with applicable financial and building code requirements.

Capital Equipment: Heavy equipment includes all vehicles, railroad stock, processing or manufacturing machinery, shop machinery, reactor or accelerator machinery, and reserve construction machinery. Special and scientific equipment includes medical, laboratory, and security equipment. Automated data processing equipment includes computers, printers, cathode ray tubes, operating system software, and interface peripherals (DOE Accounting Handbook, Chapter 10 10-5, 1 f (2) (b) (1-3)).

Certified Realty Specialist (CRS): A DOE employee who is certified in one or more of the four specialty realty areas: acquisition, non-General Services Administration leasing, General Services Administration leasing, and land management and disposal. Employees so certified are authorized to prepare and implement real estate actions within certified specialty areas. Detailed guidance and procedures for becoming a CRS are found in the DOE Real Estate Process Desk Guide for Real Estate Personnel (DOE O 430.1B, *Real Property Asset Management*).

Cognizant Secretarial Office (CSO): A Program Secretarial Office that has responsibility as an owner for a program-specific (programmatic) facility or area present on a site that is owned by another program office [i.e., the Lead Program Secretarial Office (LPSO)]. The CSO coordinates with the site owner (i.e., the LPSO) to ensure needed infrastructure support is planned and provided for its facilities/area (DOE O 430.1B, *Real Property Asset Management*).

Construction: Is the erection, installation, or assembly of a new plant facility; the addition, expansion, improvement, or replacement of an existing facility; or the relocation of a facility. Construction includes equipment installed in and made part of the facility and related site preparation; excavation, filling and landscaping, or other land improvements; and the design of the facility (DOE Accounting Handbook, Chapter 10, Plant and Capital Equipment, paragraph 1g (4) (a)).

Contaminated Facilities: DOE facilities that have structural components and/or systems contaminated with hazardous chemicals and/or radioactive substances, including radionuclides. This definition excludes facilities that contain no residual hazardous substances other than those present in building materials and components, such as asbestos-containing material, lead based paint, or PCB-containing equipment. This definition excludes facilities in which bulk or containerized hazardous substances, including radionuclides, have been used or managed if no contaminants remain in or on structural components and/or systems (DOE O 430.1B, *Real Property Asset Management*).

Deactivation: Placing a facility in a stable and known condition including the removal of hazardous and radioactive materials to ensure adequate protection of the worker, public health and safety, and the environment, thereby limiting the long-term cost of surveillance and maintenance. Actions include the removal of fuel, draining and/or de-energizing noncritical systems, removal of stored radioactive and hazardous materials, and related actions. Deactivation does not include all decontamination necessary for the dismantlement and demolition phase of decommissioning, (e.g., removal of contamination remaining in the fixed structures and equipment after deactivation) (DOE O 430.1B, *Real Property Asset Management*).

Decommissioning: The process of closing and securing a nuclear facility or nuclear materials storage facility to provide adequate protection from radiation exposure and to isolate radioactive contamination from the human environment. It takes place after deactivation and includes surveillance, maintenance, decontamination, and/or dismantlement. These actions are taken at the end of the life of a facility to retire it from service with adequate regard for the health and safety of workers and the public and protection of the environment. The ultimate goal of decommissioning is unrestricted release or restricted use of the site (DOE O 430.1B, *Real Property Asset Management*).

Decontamination: The removal or reduction of residual radioactive and hazardous materials by mechanical, chemical or other techniques to achieve a stated objective or end condition (DOE O 430.1B, *Real Property Asset Management*).

Demolition: Destruction and removal of facilities or systems from the construction site. This is a direct cost (DOE G 430.1-1).

Direct Costs: Any costs that are or can be identified with a particular program the first time the costs are charged. These costs are directly charged to a program since they are directly related to and are being incurred principally for the benefit of the program receiving the charges. These costs generally consist of direct labor, materials and supplies (DOE Budget Formulation Handbook).

Disposal: Permanent or temporary transfer of DOE control and custody of real-property assets to a third party who thereby acquires rights to control, use, or relinquish the property (DOE O 430.1B, *Real Property Asset Management*).

Disposition: Those activities that follow completion of program missions, including, but not limited to, preparation for reuse, surveillance, maintenance, deactivation, decommissioning, and LTS (DOE O 430.1B, *Real Property Asset Management*).

Disposition Baseline: The technical, programmatic, and regulatory information which serves as input to the disposition preparation and planning process, and is essential to meeting the goal of maximum risk reduction and long-term cost savings in the elimination of excess real property assets (DOE O 430.1B, *Real Property Asset Management*).

Excess Real Property: Land, improvements to land, or both, including interest therein, which is not required for the Department's needs or the discharge of its responsibilities. For the purposes of reporting deferred maintenance, excess real property is an asset that is on the path for disposition (DOE O 430.1B, *Real Property Asset Management*).

Expense Funded Projects: Project activities funded with operating dollars. Examples of these projects include normal maintenance and repair, such as painting, cleaning, and small repair jobs not resulting in an addition, replacement of a retirement unit, or betterment (DOE Accounting Standards, Chapter 10).

Facility: Land, buildings, and other structures, their functional systems and equipment, and other fixed systems and equipment installed therein, including site-development features outside the plant, such as landscaping, roads, walks, parking areas, outside lighting and communication systems, central utility plants, utilities supply and distribution systems, and other physical plant features. These include any of the DOE-owned, -leased, or -controlled facilities, and they may or may not be furnished to a contractor under a contract with DOE (DOE O 430.1B, *Real Property Asset Management*).

Facility Condition Index (FCI): DOE adopted the FCI in 1998 as its tool for measuring the condition of its facilities. The FCI is the ratio of the cost of deferred maintenance to the facility's replacement plant value. The cost of deferred maintenance deficiencies is determined by condition assessment inspections. FIMS data is used to calculate FCI (DOE O430.1B, *Real Property Asset Management*).

Facilities Information Management System (FIMS): FIMS is DOE's "corporate" real property database. FIMS provides an automated mechanism that allows users to manage all real property including land and its natural resources, any man-made alterations and additions (e.g. buildings, trailers/modulars, permanent fixtures, and equipment). It was designed to provide management with an accurate tool that can be used for planning by Headquarters and all DOE field offices, respond to both internal and external inquiries, provide easy to access up-to-date information, and automate the preparation of electronic reports for the General Services Administration (GSA), Federal Emergency Management Agency (FEMA), and Congress.

Federal Real Property Asset Management (Executive Order 13327): On February 4, 2004, President Bush signed Executive Order 13327, "Federal Real Property Asset Management" (<http://www.whitehouse.gov/news/releases/2004/02/20040204-1.html>). This order is intended to significantly improve the management of federal government properties by establishing the FRPC, establishing a Senior Real Property Officer for each executive agency, and reforming authorities for managing federal real property.

Federal Real Property Council (FRPC): On February 4, 2004, President Bush signed Executive Order 13327, “Federal Real Property Asset Management” (<http://www.whitehouse.gov/news/releases/2004/02/20040204-1.html>). The executive order also created an interagency FRPC to develop guidance, serve as a clearinghouse for best practices, and facilitate the efforts of the Senior Real Property Officers.

General Plant Projects (GPP): Miscellaneous minor new construction projects of a general nature, the total estimated cost of which may not exceed the statutory limit of \$5 million. GPP are necessary to adapt new facilities or improve production techniques, to effect economies of operations, and to reduce or eliminate health, fire, and security problems. These projects provide for design and/or construction, additions, improvements to land, buildings, and utility systems, and they may include the construction of small new buildings, replacements, or additions to roads, and general area improvements (DOE Accounting Handbook, Chapter 10, 10-14, 2 h (1)).

General Purpose Equipment (GPE): Refers to items of plant and equipment, including both real and personal property, that are owned by DOE, are recorded in the completed plant accounts, and meet the monetary and service life criteria for capitalization (i.e., a service life of two years or more, and a cost equal to or greater than \$25,000), regardless of the appropriation or fund charged. Group purchases of similar items that each cost less than the minimum (\$25,000) but when combined constitute a significant investment, are considered capitalized property, such as automated information system components. For additional details and exclusion concerning plant and capital equipment, see the DOE Accounting Handbook (DOE Budget Execution Manual 135.1-1, Attachment I-2 (25), 6-5-97. Definition tracks current proposal for revision.).

Gross Square Feet (GSF): The total floor area of a building in square feet (exterior wall to exterior wall) (FIMS User’s Guide–11/29/07).

Inactive: Not currently being used but may have a future need. Include real property in a caretaker status and closed installations with no assigned current federal mission or function (FY 2006 Federal Real Property Reporting Requirement – FRPC Data Changes).

Indirect Costs: Are costs that are not identified with a single, specific final cost objective. These costs, collected in cost pools, are distributed or allocated to a final cost objective based on a predetermined methodology. Site overhead costs, service centers, and organizational burden are examples of indirect costs (DOE Budget Formulation Handbook).

Infrastructure: All real property, installed equipment, and related real property that is not solely supporting a single program mission at a multi-program site or that is not programmatic real property at a single program site (DOE O 430.1B, Real Property Asset Management).

Institutional Controls: Non-engineering measures intended to affect human activities in such a way as to prevent or reduce exposure to hazardous substances. There are four categories of institutional controls: governmental controls; proprietary controls; enforcement and permit tools with institutional controls components; and information devices. Institutional controls are those governmental controls such as deed notifications, easements, use restrictions, leases and other property interests that are inventoried as records and notes in records in the Facilities Information Management System (DOE O 430.1B, *Real Property Asset Management*).

Institutional General Plant Project (IGPP): IGPPs are miscellaneous minor (i.e., less than \$5M) new construction projects of a general institutional nature benefiting multiple cost objectives and required for general-purpose site-wide needs. IGPPs do not include projects whose benefit can be directly attributed to a specific or single program. Examples of IGPPs are: multi-programmatic/inter-disciplinary scientific laboratory; institutional training facility; site-wide maintenance facilities and utilities; new roads; multi-programmatic office space; and multi-programmatic facilities required for “quality of life” improvements.

Integrated Facilities and Infrastructure (IFI) Crosscut Budget: Is a crosscutting budget exhibit that has been developed to ensure sustained improvement in real property management. It constitutes the resources required to implement a Ten-Year Site Plan. This crosscut budget identifies renovation, recapitalization, maintenance and demolition projects for buildings and facilities by program and site. The IFI budget also includes reports on direct maintenance and an estimate of indirect maintenance and repair funding requirements. The IFI is developed in conjunction with the Department’s budgeting process and submitted annually with the Presidential Budget to Congress (DOE O 430.1B, *Real Property Asset Management*).

Land-Use Planning: Is a formal, integrated planning process that is used to identify an appropriate mix of land uses at each site and guidelines for development [See DOE P 430.1, *Land and Facility Use Planning*, dated 7-9-96 (reference o)] (DOE O 430.1B, *Real Property Asset Management*).

Lead Program Secretarial Office (LPSO): Is a Program Secretarial Office (PSO) that is responsible for implementation of policy promulgated by Headquarters staff and support organizations for a field office. The LPSO owns the site, manages its own program projects, and acts as a host for tenant Cognizant Secretarial Offices/PSOs by providing facility and/or infrastructure support (DOE O 430.1B, *Real Property Asset Management*).

Life Cycle: Is the life of an asset from planning through acquisition, maintenance, operation, remediation, disposition, LTS, and disposal (DOE O 430.1B, *Real Property Asset Management*).

Life-Cycle Cost: The sum total of the direct, indirect, recurring, nonrecurring, and other related costs incurred or estimated to be incurred in the design, development, production, operation, maintenance, support, and final disposition of real property over its anticipated useful life span (DOE O 430.1B, *Real Property Asset Management*).

Line Item Projects: Those separately identified project activities that are submitted for funding and are specifically reviewed and approved by Congress (DOE O 430.1B, *Real Property Asset Management*).

Long-Term Stewardship (LTS): The physical controls, institutions, information and other mechanisms needed to ensure protection of people and the environment at sites where DOE has completed or plans to complete cleanup (e.g., landfill closures, remedial actions, removal actions, and facility stabilization). This concept includes land-use controls, monitoring, maintenance, and information management (DOE O 430.1B, *Real Property Asset Management*).

MAINTENANCE:

Maintenance. Day-to-day work that is required to sustain property in a condition suitable for it to be used for its designated purposes, including preventive, predictive, and corrective maintenance (DOE Order 430.1B). Maintenance costs and work do not include the following:

- Regularly scheduled janitorial work such as cleaning, and preserving facilities and equipment.
- Work performed in relocating or installing partitions, office furniture, and other associated activities.
- Work usually associated with the removal, moving, and placement of equipment.
- Work aimed at expanding the capacity of an asset or otherwise upgrading it to serve needs different from or significantly greater than those originally intended.
- Improvement work performed directly by in-house workers or in support of construction contractors accomplishing an improvement.
- Work performed on special projects not directly in support of maintenance or construction.
- Non-maintenance roads and grounds work such as grass cutting and street sweeping.

Annual Actual Maintenance. Actual costs incurred in the current fiscal year of all maintenance activities for a building, trailer/modular, or OSF (FIMS User's Guide–11/29/07). Projections of actual maintenance should reflect the funding targets.

Annual Required Maintenance. Estimates of all costs required to perform maintenance activities for a building, trailer/modular or other structure and facility (OSF) in the current fiscal year that one would normally expect to be accomplished as determined by engineering/maintenance/life-cycle analysis and vendor maintenance schedule. Included are preventive maintenance, predictive maintenance, and any other maintenance activity required for which the current fiscal year is the optimum period of accomplishment. Costs for unforeseen repairs are generally not known and should not be reported in this category (FIMS User's Guide–11/29/07). Projections of required maintenance should be unconstrained.

Corrective Maintenance. The repair or restoration of failed or malfunctioning equipment, systems, or facilities to their intended functions or design conditions. It does not result in a significant extension of the expected useful life (DOE O 430.1B, *Real Property Asset Management*).

Deferred Maintenance. Maintenance that was not performed when it should have been or was scheduled to be and which, therefore, is put off or delayed for a future period (DOE O 430.1B, *Real Property Asset Management*). Do not include replacement-in-kind and costs associated with programmatic assets.

Predictive Maintenance. Those activities involving continuous or periodic monitoring and diagnosis to forecast component degradation so that “as needed” maintenance can be scheduled (DOE O 430.1B, *Real Property Asset Management*).

Preventive Maintenance. Those periodic and planned actions taken to maintain a piece of equipment within design operating conditions and extend its life and performed before equipment failure or to prevent equipment failure (DOE O 430.1B, *Real Property Asset Management*).

Mission Dependency – FRPC Definition: The value an asset brings to the performance of the mission as determined by DOE in one of the following categories:

Mission Critical: Land or constructed assets deemed necessary to perform the primary missions assigned to a particular site. This would encompass any facility or infrastructure predominantly used to perform scientific, production, environmental restoration or stockpile stewardship and without which, operations would be disrupted or placed at risk.

Mission Dependent, Not Critical: Land or constructed assets that play a supporting role in meeting the primary missions assigned to a particular site. Loss of Mission Dependent, Not Critical assets would not immediately disrupt operations and can be reasonably restored or otherwise addressed prior to impacting operations.

Not Mission Dependent: Land or constructed assets that are not in support of the primary missions assigned to a particular site but support secondary missions and/or quality of workplace initiatives. Loss of a Not Mission Dependent asset results in inconvenience and indirectly impacts operations if unavailable for an extended period. Further, assets determined to be excess to the site mission fall under this category (DOE's FIMS Data Dictionary dated 11/29/07 available at <http://65.216.217.68/Downloads/FIMSDED.PDF>).

Operating Efficiency: Is any measure used to track the operating efficiency of assets. For example, Cleaning, Maintenance, and Utility costs tracked on a per square foot basis, or energy consumption tracked by the BTU consumption per GSF (FRPC).

Operating Facilities: Facilities that have a Facilities Information Management System status code of operating, operating standby, operating pending excess, operating under out-grant, or operating pending decontamination and demolition/disposition (DOE O 430.1B, *Real Property Asset Management*).

Optimum Period: That time in the life-cycle of an asset when maintenance actions should be accomplished to preserve and maximize the useful life of the asset. The determination is based on engineering/maintenance analysis and is independent of funding availability or other resource implications.

Other Project Costs (OPC): For purposes of allocating indirect costs to DOE construction/capital projects, this would mean that (in addition to fringe and organizational burden) an equitable share of all general and administrative and other site wide common support activities would be charged to all cost objectives, regardless of the type of funding. In most, if not all, instances, this would result in the application of the same overhead/indirect rate to both operating and construction/capital projects. However, this does not preclude the use of a different rate if there are cost centers/costs which are material and do not have a causal and beneficial relationship to construction/capital projects (DOE Budget Formulation Handbook, dated March 2, 1998, Chapter II, paragraph 4b (1), page II-4.1).

Personal Property: Is generally property that can be moved, i.e., not permanently affixed to and part of the real estate. Generally, items remain personal property if they can be moved without seriously damaging or diminishing the functional value of either the real estate or the items themselves. Examples of personal property include, but are not limited to, shop and lab equipment, motor vehicles or aircraft, construction equipment, and automated data processing and peripheral equipment (DOE O 430.1B, *Real Property Asset Management*).

Plant, Property & Equipment: Tangible assets that meet the capitalization criteria, that are not intended for sale in the ordinary course of operations, and have been acquired or constructed with the intention of being used, or being available for use by the entity. Plant, property, and equipment includes site infrastructure (DOE O 430.1B, *Real Property Asset Management*).

Programmatic Equipment: Refers to personal property used by programmatic personnel, including the personal property meeting the threshold for the list of capital equipment (DOE CFO, FY 2003 *Real Property Deferred and Annual Maintenance Reporting Requirement*).

Programmatic Real Property: Refers to reactors, accelerators, and similar devices used by programmatic personnel, acquired with line item funding, and listed in the Facilities Information Management System as “Other Structures and Facilities” under the 3200 series usage codes, such as 3209, 3221, 3251 and 3261 (DOE O 430.1B, *Real Property Asset Management*).

Program Secretarial Office (PSO): A senior outlay program office which has work performed at a site, but not as the host Lead Program Secretarial Office or Cognizant Secretarial Office at that site, and provides annual program direction and guidance to the site/field manager for the work to be performed at the site, and for budgeting to support program work and an appropriate share of their tenant costs to the landlord (DOE O 430.1B, *Real Property Asset Management*).

Project Engineering and Design Fund (PE&D): Design funds established for use on preliminary design, which are Operating Expense funds. Typically, Project Engineering and Design funds are used for preliminary and final design and related activities for design-bid-build strategies, and for preliminary design and related costs in design-build strategies (DOE O 413.3A, *Program and Project Management for the Acquisition of Capital Assets*).

Property, Plant and Equipment (PP&E): Are tangible assets that meet the capitalization criteria that are not intended for sale in the ordinary course of operations, and have been acquired or constructed with the intention of being used, or being available for use by the entity. Any reference to PP&E also includes site infrastructure (FY 2000 FIMS Guidance).

Real Estate Actions: Documents and activities related to acquisition, management, and disposal of real property interests (e.g., easements, leases, fee title, public domain withdrawals, and mineral rights). This includes, but is not limited to, land-use permits; land surveying; appraisals; market surveys; acquisitions; in-granting; out-granting; management directives; utilization surveys; encroachment; disposal of any real estate interests; disposal of Departmental improvements without the underlying land; and establishment of use restrictions, easements, and similar institutional controls (DOE O 430.1B, *Real Property Asset Management*).

Real Property Assets: Any interest in land, together with the improvements, facilities, structures, and fixtures located thereon, including prefabricated movable structures and appurtenances thereto, under the control of DOE. All real property owned by, leased to the government, or acquired by the government under the terms of the contract. It includes both government-furnished property and contractor-acquired property as defined in Federal Acquisition Regulation 45.101. DOE-owned, -used, and -controlled land, land improvements, structures, utilities, installed equipment, and components are included. Real property and real estate means land and rights in land, ground improvements, utility distribution systems, and buildings and other structures. Real Property Assets are defined by the Federal Property Management Regulations § 101-47.103-12, *Real Property* (DOE O 430.1B, *Real Property Asset Management*).

Repair: Is the restoration of failed or malfunctioning equipment, system, or facility to its intended function or design condition. Repair does not result in a significant extension of the expected useful life (DOE O 430.1B, *Real Property Asset Management*).

Replacement: Is a complete reconstruction of a plant record unit that has deteriorated or has been damaged beyond the point where its individual parts can be economically repaired. If the item replaced is a retirement unit, its original costs (including installation cost) are removed from the P&CE accounts, and the cost of the newly installed item (including installation cost) is added to the P&CE accounts (DOE Accounting Handbook, Chapter 10, 10-1g (4) (c)).

Replacement Plant Value: Cost to replace the existing structure with a new structure of comparable size using current technology, codes, standards, and materials (DOE O 430.1B, *Real Property Asset Management*).

Senior Real Property Officer: the individual by each Federal Agency who is responsible of the effective management of agency real properties; consistent with the guidance and requirements of the FRPC (Executive Order 13327).

Site: A geographic area owned or leased by or for the account of the Federal Government for the performance of DOE program activities. The term includes any extant buildings, infrastructure and other improvements (DOE O 430.1B, *Real Property Asset Management*).

Site/Field Manager: Individual responsible for planning, programming, budgeting, and evaluation of activities in support of Secretarial office programs located on sites under his/her cognizance including host Lead Program Secretarial Office (LPSO) to tenant Cognizant Secretarial Office (CSO)/Program Secretarial Office (PSO) activities establishing site priorities consistent with mission objectives and goals established by DOE program offices having line responsibility, leading site technical direction, preparing and defending the site budget, supporting milestones agreed to with LPSO/CSOs/PSOs, providing public and private sector liaison, expediting follow-up actions, and retaining overall accountability for site activities in support of program office successes (DOE O 430.1B, *Real Property Asset Management*).

Standby Facilities: Facilities with a FIMS designation of Operational Standby (future programmatic use other than cleanup expected).

Status: DOE's FIMS requires an asset's status to be categorized by one of the following FIMS Values: 1) Operating; 2) Operating Standby; 3) Shutdown Pending Transfer; 4) Shutdown Pending D&D; 5) D&D in Progress; 6) Operating Pending D&D; 7) Operating Under an Outgrant; 8) Federal Transfer (archive); 9) Sale (archive); 10) Demolished (archive); 11) Deactivation; 12) Shutdown Pending Disposal; 13) Active; 14) Inactive; 15) Public (benefit) Conveyance (archive); 16) Lease Termination (archive); or 17) Other Disposition (archive). For specific definitions applicable to each status refer to the FIMS Data Dictionary which is available at <http://65.216.217.68/Downloads/FIMSDED.PDF>.

For the purposes of reporting Status consist with Federal Real Property Council Reporting requirements, buildings, structures and land parcels will be reported under one the following status values: 1) Active; 2) Inactive; 3) Excess; or 4) Outgrant/Outleased. For required annual reporting to the FRPC, DOE's Office of Engineering and Construction Management (OECM) will automatically map an asset's FIMS Value to an appropriate FRPC Value. For specific information as to how FIMS Values are mapped annually to FPC Values, refer to the most recent FRPC Reporting Instructions which are available at http://65.216.217.68/hq_guidance.htm.

Surveillance and Maintenance: Activities conducted throughout the facility lifecycle, including periodic inspections and maintenance of structures, systems and equipment necessary for the satisfactory containment of contamination, and for the protection of workers, the public, and the environment (DOE O 430.1B, *Real Property Asset Management*).

Sustainment: Maintenance and repair activities necessary to keep the inventory of facilities in good working order. This includes regularly scheduled maintenance as well as anticipated major repairs or replacement of components that occur periodically over the expected service life of the facilities (DOE O 430.1B, *Real Property Asset Management*).

Ten-Year Site Plan (TYSP): A planning document that identifies the site's annual and strategic program requirements and priorities, and links these to real property asset requirements. Real property asset requirements must be consistent with program missions, budgets, and planning estimates. Planning employs costing efficiencies, eliminates excess buildings, consolidates operations where practicable, and addresses mission-critical requirements through an appropriate mix of recapitalization, new construction, and disposal of excess facilities (DOE O 430.1B, *Real Property Asset Management*).

Total Project Cost (TPC): DOE has traditionally identified project costs in two categories: (1) Total Estimated Cost, and (2) Other Project Cost. The sum of the Total Estimated Cost and Other Project Costs make up the Total Project Cost.

- Total Estimated Cost includes project costs incurred after CD-1 such as costs associated with the acquisition of land and land rights; engineering, design, and inspection; direct and indirect construction/fabrication; and the initial equipment necessary to place the plant or installation in operation. Total Estimated Cost may be funded as an operating or capital expense.
- Other Project Costs include all project costs that are not identified as Total Estimated Cost costs. Generally, Other Project Costs are costs incurred during the Initiation and Definition Phases for planning, conceptual design, research and development, and during the Execution Phase for startup and operation. Other Project Costs are always operating funds (DOE O 413.3A, Program and Project Management for the Acquisition of Capital Assets).

Transfer of Facilities: Transferring programmatic and financial responsibility of land and/or facilities from one program office to another (DOE O 430.1B, *Real Property Asset Management*).

Utilization Justified Assets: The summation for a site equaling the product of each operating facilities area, in square feet, times its utilization rate in FIMS. For land, it is the acreage of the site identified as fully utilized under an E.O. 12512 survey (references) (DOE O 430.1B, *Real Property Asset Management*).

Value Engineering (VE): An organized effort directed at analyzing the functions of systems, equipment, facilities, services, and supplies for the purpose of achieving the essential functions at the lowest life-cycle cost consistent with required performance, reliability, quality, and safety. For purposes of this Order, value analysis, value management, and value control are considered synonymous with VE (DOE O 430.1B, *Real Property Asset Management*).

Waiver: In Conference Committee Report 107-258 accompanying the FY2002 Energy and Water Development Appropriation Bill, the Committee established the requirement that for each DOE site, the footprint added by construction of new facilities must be offset by the elimination of an equal amount of excess footprint at the site. The Secretary of Energy can, on a case-by-case basis when it is deemed impractical due to critical mission requirements, provide a waiver to allow the offset requirement to be met through the reduction of excess facilities at another site.

Work for Others (WFO): Work for Others is the performance of work for non-DOE entities by DOE/contractor personnel and/or the utilization of DOE facilities that is not directly funded by DOE appropriations (DP F&I Assessment, Phase I, Report 2000–No source listed).

APPENDIX 3

EM CORPORATE COMMITMENTS TO DEFERRED MAINTENANCE REDUCTION FOR FACILITIES AND INFRASTRUCTURE

EM is corporately committed to maintaining its mission-essential real property assets in a manner that will ensure its ability to complete its mission as well as support all other enduring DOE missions at sites where EM is the Lead Programmatic Secretarial Office.

By the end of FY 2010 EM will:

- (1) Aggressively reduce deferred maintenance to within industry standards;
- (2) Return facility conditions, for our mission essential facilities and infrastructure, to an assessment level of good to excellent (deferred maintenance/replacement plant value less than 5 percent);
- (3) Have institutionalized responsible and accountable facility management processes, including budgetary ones, so that the condition of EM facilities and infrastructure is maintained equal to or better than industry standards.

Additionally, EM is committed to establishing a validated baseline of deferred maintenance (using the FIMS Deferred Maintenance definition) and Replacement Plant Value (RPV) that incorporates these commitments into the validated life-cycle baselines. EM corporate deferred maintenance reduction goals beyond FY 2007 will be measured at the site, versus building, level.

APPENDIX 4

DISPOSITION PRIORITIZATION AND METHODOLOGIES

DOE Corporate Initiative on Prioritization of Excess Process Contaminated Facilities

In response to the Deputy Secretary's Program Decision Memorandum for the FY 2008 through FY 2012 Corporate Program Review (PDM EM-08-12, Rev. 1, dated August 10, 2006), EM is leading the Department's initiative to develop a DOE-wide prioritization methodology for disposition of excess process-contaminated facilities. The objectives are to begin to implement the Department's excess process-contaminated facilities disposition prioritization methodology in support of the FY 2008 through 2012 President's Budget, with full implementation in time to support the FY 2009 through 2013 programming and budgeting process.

EM is currently working with the program offices to reach agreement on the content and format of the Department's prioritization methodology prior to its implementation. In the interim, sites should follow the general guidance for excess facilities prioritization that was included in last year's FY 2007 through 2016 TYSP guidance. The expectation is that the sites' FY 2008 through 2017 TYSPs will reflect the new prioritization methodology guidance (when issued) to the greatest extent practicable.

APPENDIX 5

PRIORITIZATION OF EXCESS FACILITIES DISPOSITION

Sites are required to prioritize **ALL** excess facilities requiring disposition on **Attachment C**. Report prioritized facilities by funding program, where a known funding source has been identified. Separately group and prioritize those excess facilities requiring disposition where no funding source has yet been identified.

In the absence of program-specific prioritization guidance, sites are requested to use the following general guidance:

A large number of prioritization systems of varying levels of sophistication and complexity have been proposed and applied to line items, infrastructure, and major expense projects over the years (e.g., Life Cycle Asset Management Good Practice Guide, GPG-FM-030, Prioritization, March 1996, presents four examples). No specific methodology is recommended here; however, some general guidance is provided below.

As suggested by DOE O 430.1B, prioritization should be based on criteria of reducing (worker and public) risks and minimizing life-cycle costs. In addition to these criteria, the following criteria should be considered and balanced in determining the ranking of facilities for disposition:

- Regulatory compliance drivers: addresses possible failures to comply with compliance agreements with EPA or the state, or other major laws and regulations,
- Execution logic: addresses sequencing of proposed activities compared with other related site activities and/or constraints,
- Mission impact: addresses potential adverse impacts to ability to perform EM missions of the site or facility,
- Environmental impact reduction: addresses potential adverse impacts on natural resources, such as air, water, land, and wildlife.